



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,811	06/16/2006	Richard Yemm	30989/41538	3961
4743 7590 12/13/2007 MARSHALL, GERSTEIN & BORUN LLP 233 S. WACKER DRIVE, SUITE 6300 SEARS TOWER CHICAGO, IL 60606			EXAMINER CUEVAS, PEDRO J	
			ART UNIT 2834	PAPER NUMBER
			MAIL DATE 12/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,811	Applicant(s) YEMM, RICHARD	
	Examiner Pedro J. Cuevas	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/30/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-12, 16-17, 19-25, 29 and 31-34 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent No. 6,476,511 B1 to Yemm et al.

Yemm et al. clearly teaches the construction of a floating apparatus and method for extracting power from sea waves, comprising:

a plurality of buoyant elongate body members (2, 3, 4), at least one adjacent pair of body members being interconnected by a linkage unit to form an articulated chain (1), each body member of said pair being connected to the respective linkage unit by linkage means (5a, 5b) permitting relative rotation of the body members;

power extraction means (33, 34, 35) adapted to resist and extract power from the relative rotation, the power extraction means being located substantially within each linkage unit;

wherein each linkage unit is arranged to permit relative rotation between the linkage unit and a first body member about a first axis of rotation at a first end of the linkage unit, and to permit relative rotation between the linkage unit and a second body member about a second axis of rotation at a second end of the linkage unit (Abstract).

3. With regards to claims 2, Yemm et al. disclose the body members are arranged consecutively in an articulated apparatus (Figures 1 and 2), each adjacent pair of body members (2, 3, 4) being interconnected by a linkage unit to form an articulated chain (1).
4. With regards to claim 3, Yemm et al. disclose each linkage unit having a longitudinal length substantially shorter than the body members.
5. With regards to claim 4, Yemm et al. disclose the body members substantially comprise hollow members devoid of active components.
6. With regards to claim 5, Yemm et al. disclose each body member having one or more end caps with corresponding linkage means to marry with the linkage means of the linkage unit.
7. With regards to claims 6 and 20, Yemm et al. disclose each power extraction means being a hydraulic ram assembly (Abstract).
8. With regards to claims 7 and 21, Yemm et al. disclose the hydraulic ram assembly comprising a plurality of rams.
9. With regards to claims 8 and 22, Yemm et al. disclose the power extraction means including a hydraulic ram assembly for each axis of rotation.
10. With regards to claims 9 and 23, Yemm et al. disclose the power extraction means includes two hydraulic ram assemblies acting about each axis of rotation.
11. With regards to claim 10, disclose the end caps having a number of cavities to receive respective ends of the power extraction means.
12. With regards to claims 11 and 24, disclose the power extraction means having at least one seal to prevent ingress of water into the linkage unit and/or body members (column 9, lines 19-23).

13. With regards to claims 12 and 25, Yemm et al. disclose the linkage unit includes one or more power generation (75) means connected to one or more of the power extraction means.

14. With regards to claims 16 and 29, Yemm et al. disclose a constraint being applied to each power extraction means of the linkage unit (column 11, line 66 to column 12, line 11) in order to induce a cross-coupled response which may be tuned to be resonant in small waves to increase power capture and which may be set in large waves to limit power absorption and maximize survivability.

15. With regards to claim 17, Yemm et al. disclose the apparatus including one or more of a ballasting system, mooring system, and means to apply a roll bias angle to the axes of rotation (Figures 6a and 6b; column 11, lines 60-66).

16. With regards to claims 32-34, the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 13-15, 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,476,511 B1 to Yemm et al.

Yemm et al. disclose the construction of a floating apparatus and method for extracting power from sea waves, except for the linkage unit including a first power generation means

connected to one or more power extraction means at one axis of rotation, and a second power generation means connected to one or more power extraction means at the other axis of rotation.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use multiple power generation means connected to one or more power extraction means at one axis of rotation, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

19. With regards to claims 14 and 27, Yemm et al. disclose the power generation means being connectable to at least one power extraction means from each axis of rotation, such that the restraint of the linkage unit is maintained in the event of failure of one of the power extraction or generation means.

It has been held that the recitation that an element is “capable of” (in this case capable of being connected) performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

20. With regards to claim 15 and 28, Yemm et al. disclose the power generation means being connectable to one or more of the power extraction means from one or both axes of rotation, such that when the apparatus is operating at partial capacity, the one or more power extraction means is connected solely to the first or second power generation means.

It has been held that the recitation that an element is “capable of” (in this case capable of being connected) performing a function is not a positive limitation but only requires the ability to

so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

21. Claims 18 and 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,476,511 B1 to Yemm et al. in view of U.S. Patent No. 3,135,162 to N. Kamalian.

Yemm et al. disclose the construction of a floating apparatus and method for extracting power from sea waves as disclosed above.

However, it fails to disclose the linkage unit including access means, such as one or more hatches, to allow inspection, repair and maintenance on or off site.

N. Kamalian disclose the construction of a water-borne missile launcher, comprising a plurality of access means, such as one or more inspection hatches (column 2, line 1), to allow inspection, repair and maintenance on or off site for the purpose of allowing thrust-vectoring alignment inspection.

It would have been obvious to one skilled in the art at the time the invention was made to use the inspection hatches disclosed by N. Kamalian on the floating apparatus disclosed by Yemm et al. for the purpose of allowing thrust-vectoring alignment inspection.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (571) 272-2021. The examiner can normally be reached on M-F from 8:30 - 6:00.

Application/Control Number:
10/551,811
Art Unit: 2834

Page 7

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Pedro J. Cuevas
December 5, 2007